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INTERNATIONAL MIGRATION FROM SOUTHERN COUNTRIES RURAL AREAS : WHICH IMPACT ON AGRICULTURAL AND RURAL SUSTAINABILITY ?

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Abstract — Relationship between migration, development and agriculture is an old issue which dates back to Lewis and his analysis of rural-urban migration in developing countries. The economic analysis of migration (especially the so-called new economics of labour migration – NELM) has strong connections with the microeconomics of peasant or rural households. NELM particularly focuses on contracts between migrants and their remaining family or community, which leads to remittances. These migrant networks have also been analysed, using the tools of economic sociology or social capital theory, applied to Southern rural societies.

If rural migrants in southern countries keep going to the burgeoning cities of most of these countries, Southern rural migration is nowadays very often an international migration, either south-south or south-north as international migrants coming from the south are mostly rural. Consequently remittances constitutes now a rapidly growing macroeconomic component of the balance of payments of these countries, but also of the non-farm income of rural areas, raising the issue of their contribution to development and poverty alleviation either at a national or local level. In its 2008 WDR on agriculture and development, the World Bank states that migration is one of three possible exits from poverty for rural households, along with the rise of smallholder agriculture productivity and wage opportunities in rural areas. On the other side, in some places, rural livelihoods tend to be more and more disconnected from farm income and agriculture, international migration reinforcing this trend.

This paper would like to address the issue of relationship between the development of international migration and its impact on rural and agricultural sustainability.

First it will present the main quantitative data on international migration and remittances in Southern countries rural areas.

Second it will make a state-of-the-art survey of the debate on relationship between international migration and development.

Third, on this basis, it will assess its impact on agricultural and rural sustainability, either social, economic or environmental.

It will conclude that, although the impact of migration and remittances on agricultural development is contrasted, international migration and corresponding remittances can broaden the array of opportunities for the population of some rural areas and thus contribute to local sustainability

Key words: International migration, sustainability, agriculture, rurality

INTRODUCTION

Relationship between rural migration and development is an old issue in development economics. Historically internal migration has encompassed rural migration to urban areas and its analysis has been intertwined with the debate on the role of agriculture in development, emphasized by an array of contributions, among them the seminal approach of Lewis (1956).

2009 Human Development Report states that the various forms of migration, though very diverse regarding their motivation or impact, must be contemplated globally: international migration and internal migration are part of the same phenomenon and, when international migrants come from rural areas in Southern countries, international migration can be considered as the extension of the classical rural-urban migration. The fact that a great deal of literature on the economic impact of migration, especially as regards the role of remittances, has concentrated on its impact on rural areas and rural development, can be seen as an illustration of this continuity. Likewise the fact that a growing part of these migration flows goes to developed countries can be cast in a Harris-Todaro approach of migration by emphasizing the level of opportunities not only in Southern cities but also in urbanized Northern countries. However 2009 HDR states that migration remains basically South-South, very internal and probably therefore very rural-urban at the national level. Some new elements, empirical as well as theoretical, have nevertheless greatly changed the approach of rural migration in Southern countries, putting on first stage international South-North migration.

- At the empirical level the growth of remittances from migrants in Northern countries gives a tremendous economic wield to this form of migration, even if South-South migration flows still largely exceeds South-North ones. Actually the latter have more than doubled between 2002 and 2007.¹
- At the theoretical level, the development of rural household economics (Singh, Squire and Strauss, 1986; Ellis, 1993) and the “new economics of labour migration” (Stark, 1991) have emphasized that the decision of migration is a collective one, taken at the household level. The new approach of sustainable rural livelihoods (Ellis, 2000; Ellis and Freeman, 2005) underlines that migration is an option within a portfolio of activities, smallholder agriculture being only one of the options and in many cases not the most important in terms of income: rural development might not be only agricultural development and migration contributes to that.

These two points raise the issue of the contribution of migration, and corresponding remittances, to rural development as well as agricultural development, considering that these two terms are no longer entirely synonymous.

Migration is not a new phenomenon in rural areas. If we consider the first big wave of international migration in the 19th century, most European migrants coming to the new world originated from poor rural areas (from Ireland to Eastern Europe). Relationship between migration, agriculture and rural development raise however new concerns. This is epitomized for example by the position held by the 2008 World Development Report by the World Bank, the first one devoted to agriculture since the 80', in which migration is defined as a way out of rural poverty, along with the improvement of agricultural productivity and rural non-farm activities, for the “third” agriculture, meaning smallholder, mostly subsistence, agriculture. As

¹ Even if they have been hit by world economic downturn, first available figures seems to show that the anticipation of their decrease has been overvalued (Ratha et alii, 2008).

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poverty is viewed to-day as the main component of under-development and its abatement the main component of the social dimension of sustainable development, this raises the issue of the relationship between migration and rural sustainability. On the contrary, there are concerns about the consequences of environmental degradation in Southern rural areas on the rise of migration flows, thus making migration an indicator of environmental degradation.. This paper would like to address the issue of the relationship between the development of international migration and its impact on rural and agricultural sustainability which up to now has not been really put at centre-stage, despite the huge amount of literature and data on this topic.

Consequently the purpose of this paper is three-fold:

- First it will present the main quantitative data on international migration and remittances in Southern countries rural areas.
- Second it will make a state-of-the-art survey of the debate on relationship between international migration and development, which stemmed basically from the growth of remittances.
- Third, on this basis, it will assess its impact on agricultural and rural sustainability, either social, economic or environmental.

I. INTERNATIONAL MIGRATION FROM SOUTHERN RURAL AREAS: THE DATA

If we consider Southern international migration in retrospect, we must underline that it is a rather old process: first significant flows can be identified in the first decades of the 20th century: North-African migrants in France during the first world war, Mexican migrants to USA in the twenties, Sahelian migrants to coastal urban areas of West Africa in the thirties, etc.. This process built up after 2nd world war, getting geographically structured, encompassing south-south flows as well as south-north ones. But this trend has recently accelerated: since the beginning of the 21st century, flows have doubled. Likewise new migration “corridors” have emerged, especially towards Northern countries.

Migration remains a dominantly South-South process and a form of rural-urban migration. Even if, according to 2009 HDR, international South-North migration represents five millions persons a year, the number of international migrants (214 millions) remains far from the number of internal migrants (790 millions). And, among the international migrants, only 37% have gone from a developing country to a developed one.

Migration occurs along routes and corridors, some of them being rather old, and rooted in history. The Portuguese and Cape-Verdian migration to the USA (Massachusetts for a very large part) started in the 19th century because of whale-hunting. Mexican migration to the US to-day still comes in majority from central states which were headlines of railway lines going to the USA at the beginning of the 20th century (Lopez-Cordova, 2005), , etc. These corridors link couples of places between origin and destination countries. However a number of new corridors has emerged recently and new places have become important sources of migrants: for example in Mexico, migration from Southern states, until recently little concerned by this phenomenon, is in the rise; the surge of Ecuadorian migration to Spain took place in the first years of the century, Romanian have recently become the most rapidly growing migrant community in Spain, Senegalese have become an important migrant community in Italy, etc..

If migration is dominantly a South-South phenomena, migrant remittances are on the contrary a dominantly North-South flow, which can explain partially the stress put by the literature on South-North migration as the source of this flow of remittances. The bulk of remittances originates in developed countries and goes either to other developed countries or to developing ones. This is of course the mere consequence of income differential

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between Northern and Southern countries. But, being a financial flow to developing countries, it raises primarily the issue of the relationship between migration and development.

Remittances flows, as migration ones, are geographically structured in "corridors" which link not only countries but regions and territories within these countries. The territorial concentration of remittances is obviously an important factor when considering their contribution to development. In particular, rural local development is likely to be impacted by such a concentration. For that reason it seems important, when scrutinizing the relationship between migration and rural development, to focus on the level and structure of remittances.

Table 1
Evolution of remittances flows between 2002 and 2007

<i>billions \$ and %</i>	2002	2007	growth	% of total
Latin America and Caribbean	28	61	117%	24%
<i>Middle-East and North Africa</i>	15	29	89%	12%
<i>Sub-Saharan Africa</i>	5	12	132%	5%
<i>Eastern Europe and Central Asia</i>	14	47	246%	19%
<i>Southern Asia</i>	24	44	82%	17%
<i>Eastern Asia and Pacific</i>	29	59	100%	23%
<i>Total</i>	115	252	118%	100%

Source: Ratha et alii 2008

Table 2
Structure of remittances fluxes between continents

% From To	<i>Africa</i>	<i>North America</i>	<i>Latin America</i>	<i>Asia</i>	<i>Europe</i>	<i>Oceania</i>
Africa	12,2	12,5	0	16,4	57,4	1,5
North America						
Latin America	0	81,2	6,2	2,7	9,7	0,2
Asia	0,3	32,8	0,5	45,8	17,3	3,4
Europe	2,2	20,4	4,2	6,3	62,0	4,8
Oceania						

PNUD/HDR 2009

If we stay at a global level, tables 1, 2 and 3 show the following features:

- The importance of Latin America, Eastern Europe, Eastern and Southern Asia as receivers of remittances and the rapid growth of remittances in Sub-Saharan Africa
- The polarisation on North America (USA overwhelmingly) of the emission of remittances to Latin America.
- The existence of internal corridors in Asia such as the ones stemming from Chinese diaspora in Asia or Indian emigration to Gulf countries (Irudaya Rajan, 2003; Kannan and Hari, 2002).
- The migration of high-skilled from India and China to the USA (Irudaya Rajan, 2003).

- The importance of remittances from Western Europe to Eastern Europe.

Table 3
Structure of remittances by origin in Latin America

	Total remittances	Per capita	North America	Europe	Latin America
Argentina	604	15	26,2	41,1	24,5
Mexico	27.144	255	98,9	0,8	0,3
Costa-Rica	635	142	81,2	6,5	11,8
Panama	180	54	87,8	3,9	8,1
Brasil	4382	23	29,1	11,2	27,3
Colombia	4523	97	43,7	29,1	26,7
Peru	2131	76	48,7	26,7	16,4

Moreover available data allow to underline the fact that these remittances are mainly directed to rural areas, and that they are territorially concentrated. Rural migrants appear to represent a fair share of international migrants.

In Latin America there exist convergent data showing that the majority of international migrants are from rural areas: two thirds of Mexican migrants are from rural areas and the “municipios” with the highest migrant intensity are rural ones. The same patterns exists in Ecuador where migrants concentrate particularly in two rural areas.

In India Kerala is the state with the greatest number of migrants (Kannan and Hari, 2003), especially to Gulf countries. Remittances from the Gulf to Kerala represents 57% of the total Gulf remittances to India and more than 20% of Kerala GDP. Kerala represents more than a third of total Indian emigration and 95% of this flow goes to Middle East². Among Kerala districts, Malappuram, a predominantly muslim and also rural one, has 49% of its households with a migrant (against 21% for the State) It is interesting to note that until the eighties Kerala was more known for its internal migration to Indian cities than for its external migration, which shows the continuity between the rural-urban migration and the international migration. Likewise most emigration clearances in India are granted to labourer/helper without any skill, which is a further clue that a great deal of them regards people from rural areas.

Moreover, considering the level and structure of income in rural areas, the relative impact of migration and remittances is far greater there. Migration to urban areas of developing countries can also be a first stage of a South-North migration move, and many “urban” international migrants are in fact from rural origin: Migration, in all its components, appears in a way to be the continuation of rural-urban migration started by the industrial revolution.

As far as geographical concentration of migration and remittances are concerned (table 4), small countries, particularly Islands, are likely to have a high percentage of migrants and GDP percentage of remittances. This is coherent with the fact that the “export” of labour is in many cases one of the few “commodities” they can export, given the constraints linked to

² Adams (2009) drawing from data on 76 developing countries underlines that remittances per capita are higher when migrants are low-skilled, which is an indication that remittances are higher per capita in rural areas.

their geography or their size. But some large countries have also a important number of migrants and volume of remittances. Actually the three countries with the highest volume of remittances are China, India and Mexico.

Table 4: Main Southern countries receivers of remittances, 2004

Billions \$	Total received		% of GDP
India	21,7	<i>Tonga</i>	31,1
China	21,3	<i>Lesotho</i>	25,8
Mexico	18,1	<i>Haiti</i>	24,8
Philippines	11,6	<i>Jordan</i>	20,4
Morocco	4,2	<i>Jamaica</i>	17,4
Pakistan	3,9	<i>El Salvador</i>	17,2
Brazil	3,6	<i>Honduras</i>	15,5
Bangladesh	3,4	<i>Philippines</i>	13,5
Egypt	3,3	<i>Dominican Republic</i>	13,2
Vietnam	3,2	<i>Lebanon</i>	12,4
Colombia	3,2	<i>Samoa</i>	12,4
Nigeria	2,8	<i>Nicaragua</i>	11,9

Source : Banque Mondiale, Global Economic Prospects, 2006

However in these large countries, migrants are not evenly distributed, they concentrate in some areas. This has been extensively documented for Mexico and Ecuador (Lopez Cordova, 2005; Gray, 2009), but it is also the case in India with the weight of Kerala in migration towards Gulf countries (Kappan and Hari, 2001). In China Migrants come historically from some regions, the southern coastal provinces or Weijian in the North. Moreover what is true for regions is often true for smaller territories within these regions: in Mexico for example, in migration states like Jalisco and Zacatecas, some rural *municipios* have very important levels of migration and remittances, according to INEGI data. At the end the ratios of migrants to total population, or remittances to total income, can be quite similar for small countries and for migration areas in larger countries. These small countries or small areas are very often rural areas where international migration substituted at least partially to the former rural migration towards cities. It puts international migration in the wake of the seminal debate on rural migration and development initiated very early. It also raises the issue of the impact of migration on rural development.

II. THE DEBATE ON THE IMPACT OF MIGRATION AND REMITTANCES ON RURAL LOCAL DEVELOPMENT IN SOUTHERN COUNTRIES

Although the two phenomena are obviously strongly connected, we shall, for exposition purposes, first study the impact of migration before contemplating the impact of remittances.

II-1 The impact of migration

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On this matter, the available abundant literature stresses negative as well as positive impacts. Among the negative ones we can count the impact on workforce demography in origin areas. But some doubt has been cast on the reality of this impact. Moreover the impact of migration on migrants and migrant income must be reintroduced in the balance.

- A “brain drain” in rural areas: the demographic impact

The impact of migration is generally broken down into impact on the receiving country or area and impact on the origin country or area. Given our approach we shall focus on the latter.

In a first move, migration can be seen as having a negative impact on countries or areas of origin for the following reasons:

- Due to selection effect of migrants among the general population, young people in their most productive years are likely to go. In many societies these young people are mostly men, although this gender bias does not exist in all situations. The remaining population includes a higher proportion of children or old people with a lower productivity, particularly as regards agricultural production.
- Migration of people represents for the area of origin the loss of the product of investment on human capital made in the raising and education of those migrants. Although this “brain drain” issue has been raised for the more qualified migrants, usually not coming from rural areas, it has a general validity and reinforces the previous argument.

“New Economics of Labour Migration” has criticized these arguments, putting forward the fact that “brain drain” can lead to “brain gain”. First the opportunity to migrate can be an incentive to invest in human capital, this investment being done also by people who finally do not migrate. Second migrants may come back with a higher level of human capital they can invest in local activities and, even if they don’t come back, they can transfer these skills to the remaining population through migrant networks.

Case-studies give a contrasted vision of the relevance of these arguments. In some cases high proportion of migrants is correlated with the demise of agricultural production, but the sense of causality remains unclear. In others, agricultural innovations are clearly introduced through migrants.

- The development of “migration skills” and migration networks, especially linked to place.

Until now we have considered the impact of migration on non migrants, but we have also to focus on the migration process itself as it represents an activity in which migrants invest resources and might get some additional skills.

If we consider labour migration as an exportation of a determined commodity at an area level, this means that concerned areas do develop with time “migration skills” which reinforce the productivity of migration as an opportunity. The historical character of migration, caught at different geographic levels, but especially in small territories, seems to demonstrate the relevance of this approach in terms of migration skills, which is embodied in the performance of migration networks and the circularity of migration between origin and destination. Data available for Mexico suggest that³.

3 Munshi stresses the circularity of migration in Mexico and the importance of family networks, which has a self-reinforcing impact on the ability to migrate. According to the 2008 Mexican report on human

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This of course is only valid for migration flows cast in an relatively long historical process: in the case of emerging and rapidly growing flows, we can be faced with a “Dutch Disease situation”, in which migration crowds out other activities without any capitalisation of migration skills.

It is of course of great interest to evaluate it what measure these migration networks can act as innovation and technology transfer networks towards areas of origin. The importance of expatriate and returnees networks has been highlighted for many countries as far as high-educated migrants are concerned (Burns and Mohapatra, 2008); it remains to be seen in what measure this can be valid for migrants from rural areas in developing countries⁴.

- The impact on migrant income:

Clemens and Pritchett (2008) use as an index of this impact the difference between GDP per national and GDP per resident : for some countries (small ones in general) GDP per national is much higher than GDP per resident. But figures, should they be available, would probably be very similar for places specialized in migration in larger countries (for example in Kerala or Centre-West Mexican states) particularly in rural areas. As income growth of the poorest are nowadays considered as the central goal of development process, Pritchett can even assume that migration is not an alternative to development, it is development in its own right. Rigg (2006), drawing mainly from South-Asian cases takes a similar standpoint for rural areas of developing countries, reckoning that rural development in these areas is to-day often disconnected of agricultural development but very much linked to non-farm opportunities, among them migration.

These considerations on migrant income lead however to concentrate on remittances and their impact

II-2 The impact of remittances

This impact can be broken down in two items: macroeconomic impact and micro and meso-economic impact. According to Kapur (2003), mostly economic literature on the former is rather optimistic, as more sociological and anthropological one on the latter is more contrasted.

- The macroeconomic impact

The macroeconomic impact boils down to two aspects: impact on the balance of payments and possible Dutch Disease effect (essentially for small countries at the national level).

Regarding the first one, it is widely underlined that remittances represent for developing countries a financial external flow, to-day well above foreign aid in and comparable to Foreign Direct Investment. Given the concentration of remittances this means that for many countries, even large and emergent such as Mexico, remittances are above FDI. The fact

development, relationship between Historical Centre-West migration states, with a high migration intensity have an intermediate HDI level, compared with new ones.(Chiapas and Oaxaca) where migration is emergent.

⁴ According to figures given by Burns and Mohapatra (2008) it seems that small and island countries (Surinam, Guyana, Cape Verde, Grenada) have specialized in the sending of high-educated labour force. In these countries rural development is probably very disconnected of agriculture, and very much geared towards services and construction sectors.

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that these flows accrue directly to households without transiting by States is widely praised in the comparison with foreign aid.

Consequently It seems that their existence reduce significantly the probability of current account reversals (Bugamelli and Paterno, 2009), thus improving external financial sustainability of these countries. However, if we refer to the possibility of an investment-driven steady growth path, the cave-at is that remittances are precisely part of current account balance and not of capital balance, which means that they are not readily comparable to FDI flows: the validity of the comparison depends of their channelling towards investment which rests on the behaviour of receivers, which can be better appraised at micro or meso level.

Regarding the second one, it is only relevant for small countries where the ratio of remittances to GDP is high : for example Acosta and alii (2009) found for El Salvador a bias towards non tradables and a rise of real exchange rate linked to the rise of remittances. But even in this case it is not automatically granted: Dutch Disease model is based on an assumption of an external positive price shock on an exported commodity (which can be labour force) on other exporting activities. Therefore remittances can be seen as generating a shock when they are rapidly rising. When they are deeply rooted in history, Dutch Disease effect is not likely. Moreover, given the local concentration of remittances, the likelihood of Dutch Disease should be better assessed at the meso level of territories, even if the rise of real exchange rate is not relevant in this case.

In any case the assessment of remittance macroeconomic impact is of moderate relevance for developing countries rural areas which are more concerned by the assessment of local impacts, in absolute as well as relative terms.

- The local impact

As far as microeconomics is concerned, the debate focusses on the way beneficiaries use remittances, and particularly on the choice they make between consumption or investment.

A common wisdom on the use of remittances insists that they are mostly spent on imported durables and status goods, which means that they are boosting consumption and not investment and that the kind of consumption they promote is not likely to alleviate poverty. But a rather consistent quantitative evidence shows that remittances are used by households, just like any other income, thus excluding any bias on status goods.⁵

The impact of remittances on investment is adamant when considering their impact on agricultural and rural development. Picture stemming from a variety of case-studies is fuzzy, but at the end, in many cases, pointing at a rather weak impact at household level. However a small impact at household level can mean a significant impact at the aggregate level of some communities, as some case-studies seems to show. Moreover the impact may appear limited when considering investment in agriculture, although in some cases agricultural investment can be linked to remittances, as Tiffen (2003) points out for Sub-Saharan Africa This is less true when considering investment in other sectors, such as commerce, construction, transport services, etc. in rural areas, but also in urban ones, as rural

⁵ Adams et alii (2008), drawing from an household survey in Ghana, show that remittances are used like any other income, but they underline that the moderate level of remittances in this country compared to others could explain that. Zarate-Hoyos (2004) shows that in Mexico consumption patterns of Remittances-receiving households are not different from non receiving households, thus excluding any demonstration effect linked to remittances. However it seems that remittances receiving households have a greater propensity to save.

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remittances sometimes finance investment by internal migrants in urban areas : Woodruff and Zenteno (2001) as well as Massey and Parado (1998) stress the role of remittances in providing start-up capital for micro-enterprises in urban as well as rural areas of Mexico.

Even for investment in agriculture, the impact is so variable at a community or area level, that Zarate-Hoyos (2004) concludes that probably the relationship between remittances and investment, particularly agricultural investment, have to be inverted. Remittances are invested when there exist interesting opportunities of investment, which is the case in some rural areas (he quotes some cases in Guanajuato and Zacatecas)⁶. Otherwise the impact of investment of remittances located in a determined area will be effective in other, possibly urban, areas: remittances does not create investment opportunities but investment opportunities do attract remittances. The main issue concerning the contribution of remittances to agricultural or even rural investment is therefore the issue of the identification of investment opportunities in agriculture or more broadly in rural areas.

Even if the impact of remittances on investment in physical capital is uncertain, the impact on human capital has to be taken into consideration. But this impact is actually linked to some items of consumption spending, regarding in particular health, hygiene or education (and maybe also food consumption from a nutritional point of view). Literature generally converge on the recognition of the positive impact on health and education in areas of origin linked to the spending of remittances , which is in line with the absence of a bias towards status goods, (Edwards and Ureta, 2003 for El Salvador; Yang 2005 for Philippines; Lopez-Cordova, 2005, drawing from a cross-section analysis of Mexican municipalities;...). In some cases this spending on education and health can be seen as raising migration fitness and opportunities and is coherent with the development of "migration skills".

As far as local meso impact is concerned, the territorial concentration of remittances raises the possibility of a "local" Dutch Disease effect. The rapid rise of migration flows in some areas can be likened to such a shock and can lead for example to the crowding out of agricultural activities. Mexico for example is a good example of that, as it harbours long-term migration areas and emergent ones⁷.

In areas where migration is a long-term resilient phenomenon, remittances do not appear as a monetary shock. On the contrary they can fuel a permanent demand by their recipients for a local "domestic" sector: they can start a local economic circuit through a multiplier effect, thus referring to the building of a residential economy in these areas (Davezies, 2008; Requier-Desjardins, 2009).

- The impact on poverty

The abatement of poverty being considered as a key component of development, the impact of remittances on poverty has been widely discussed, especially in the case of rural areas, which harbour the bulk of poverty in developing countries.

⁶ Durand and alii (1996) show also for Mexico that the channelling of remittances towards investment, and the substitution of remittances to community to savings for their own by migrants are higher in dynamic communities with a high rate of self-employment, good connections to markets and stability of land access through an "ejido". On the contrary in marginalized communities investments in housing are more common.

⁷ Salas Casasola (2008), studying at state level the impact of the liberalisation of Mexican economy on rural poverty, shows that the degradation of agricultural productivity is greater in new migrant states (Chiapas, Oaxaca) than in old ones in Center-West Mexico as the emergence of migration is correlated in these states with the recent liberalisation process..

Available data (Adams and Page, 2005, Acosta et alii, 2007, Acosta et alii, 2009, World Bank, 2006) point at the fact that remittances reduce the incidence of poverty⁸, not only because they represent an extra income for poor rural areas, but also because they generally fund very important expenses for the level of welfare and the abatement of the “poverty of capacities”, such as health and education. As poverty incidence is widely used to assess impact of poverty abatement policies, it is also used to sustain the idea of a positive impact of remittances on poverty. However the dimension of this impact may seem reduced and country heterogeneity is pointed out⁹. Moreover for large countries like Mexico, the expected form of the relationship at the national level does not mean that it remains true at the local level of concerned rural areas, far more significant given the concentration of remittances.

Impact on poverty depth and intensity is far less clear. Actually migrants do not generally come from the poorest households in concerned areas¹⁰, given that migration entails a cost, which can be quite high, especially in the case of illegal migration, and also requires a level of capacities above the ones of the poorest households. That means that remittances do not accrue to this kind of household and extreme poverty is not impacted by remittances. The intensity is therefore not greatly reduced as mean income of the poor does not raise significantly and in many cases inequality between the poor will be reinforced as a relative minority of poor households will benefit of remittances. Consequently, according to World Bank (2006) the impact of remittances on inequality remains unclear.

The territorial dimension of the relationship between migration and welfare has nevertheless to be taken into consideration: in Mexico, where exist accurate data at municipality level, it seems that the relationship between migration intensity and HDI (human development indicator) is a Kuznet-curb kind, which could indicate that migration do have a positive impact until middle-distribution level of HDI, linked in particular to network and migration skills effect, before declining in the upper part of the distribution. (Human development report Mexico, 2008).

III. RURAL MIGRATION AND SUSTAINABLE DEVELOPMENT: THE IMPACT ON SUSTAINABILITY

Most of the debate on migration and remittances focuses on their possible impact on the development of concerned areas and development cannot to-day be defined independently of sustainability. Sustainable development introduces a focus on environment and natural resources, but it keeps integrating economic sustainability, and therefore macroeconomic conditions of steady growth as well as resilience of microeconomic agents. As well social sustainability, encompassing equity issues and the abatement of poverty, but also more broadly the resilience of society as such, is seen as a main tenet of development issues¹¹.

⁸ Adams and Page (2005), drawing from data from 71 developing countries, reckons that a 10% rise in official international remittances entails a 3,5% drop of the share of people living in poverty

⁹ According to Acosta and alii, 2007, the distribution of remittances between quintiles of non-remittance income for Latin American countries can decrease with the ranking of quintile (Paraguay, El Salvador and Mexico for example), increase (Peru, Nicaragua) be U-shaped (Bolivia, Haiti) or with no clear tendency.

¹⁰ At a country level, Adams (2009) shows the level of poverty in labor-sending countries is not correlated with the level of remittances.

¹¹ Actually the old duality between growth and development emphasized that development encompassed the transformation of economic and social structures aiming at the improvement of welfare, but the stress was

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In assessing the relationship between migration and rural sustainability we will review the various dimensions of sustainability as they are traditionally addressed, economic, social and ecological, drawing from the debate on the impact of migration and remittances addressed above.

III-1 Migration and economic sustainability

At the economic level remittances are often said to contribute to the macroeconomic viability of developing countries, given their contra-cyclical impact, especially in case of current-account balance reversal. This argument however is mainly relevant when we deal with an economic shock entailing a balance of payment crisis hitting a determined country. We can refer for example to the case of Ecuador where the rise of migration flows to USA and Spain followed the economic collapse of 1999-2000 (Gray, 2009). It is also relevant when we take into consideration the bulk of developing countries: data show that remittances are more steady in their evolution than for example FDI. But on the contrary, in the case of a world crisis, like the one we are currently living, remittances are hit by the rise of unemployment in developing countries. It seems however that the lowering of remittances has been less pronounced in the last months than anticipated¹².

Economic sustainability can be addressed at a more meso and territorial level, since remittances are part, and even the main component, of the economic basis of areas "specialized" in migration, which are mainly rural areas in developing countries. We refer here to the approach of "residential economy" (Davezies, 2008 and 2009) which considers that there can be defined an area-based economic circuit, fuelled by the multiplier effect of an economic basis (i.e. a Keynesian vision of territorial economy). This basis can be productive, resting on the distribution of income linked to the production process of "exportations" of goods and services to other areas, but it can also be residential, based on the local spending of incomes generated elsewhere : public or private transfers, retirement pensions, medical subsidies, residents attracted by some residential amenities such as preserved landscape and nature and lack of congestion, etc. .

Remittances fit obviously in this framework, as well as in the framework of diversification of rural activities towards domestic activities catering to this demand.¹³ In the case of remittances, economic circuit is fuelled by the needs of recipients but also by direct spending of migrants, during their regular visit to their home area, or for investment in housing or cultural collective infrastructures. We are very close to a form of rural development based on rural amenities for tourism or residents working elsewhere.

We can integrate to this multiplier effect on investment in domestic sectors the impact of remittances on local financial facilities when the existence of remittances is an incentive for the opening of these facilities in rural areas, thus contributing to financial development with a rebound effect on other activities.

On this matter, Giuliano and Ruiz-Arranz (2008) reckon the substitution of remittances to classical financial development, an important aspect for rural areas of developing countries

more on the transformation of economic structures, for example through industrialisation at the national level. To-day the approach to development is more global and more focussed on its expected achievements in terms of the various dimensions of welfare (epitomized for example by the "millennium goals").

12 According to SELA (2009) the impact on GDP of 2009 downturn for Latin American countries will range from 0,1% (Peru) to 0,9% (Honduras and El Salvador) and 1,1% (Haiti), Mexico, the main receiver of remittances being at 0,2%. Ratha and alii (2008) forecast that growth of remittances will slow significantly but that flows will remain resilient.

13 Durand and alii (1996) provide an estimation of the multiplier effects of « migradollars » at a 2,9 level

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as they are more likely to suffer from financial under-development and repression: remittances are a good substitute to financial development, meaning that there are likely to relieve credit constraint for investment. But they also find that financial development boosts remittances. But Demisguç-Kunt and alii (2009) find that remittances in Mexico increase breadth and depth of the banking sector, which, given that banking is quite developed in urban areas, is likely to impact primarily rural areas and consequently alleviate financial constraints for investment; Orozco and Fedewa (2007) find the same results for other Latin American countries¹⁴.

III-2 Migration and social sustainability

Social sustainability is generally defined by the abatement of household poverty and vulnerability as well as the containment of inequality in order to mitigate social tensions. But welfare and poverty can be defined referring to monetary income, to the disposal of non monetary public goods (Health, education, sanitation, etc.), and to the level of “capacities”.

If we refer to the monetary approach of income, the impact of remittances on poverty, as we have seen, is generally acknowledged by the relevant literature. However as poorest households are not those who are the most concerned by migration, especially international migration, impact on poverty incidence is probably greater than on poverty depth and intensity. Migration can entail from this point of view selection effects, actually deepening income disparities and inequality among rural population.

If we refer welfare to “capacities” and therefore poverty to “poverty of capacity” the capacity to migrate can be considered within the framework of the capacity approach of welfare (Sen, 1999): 2009 HDR considers migration as the accomplishment of a fundamental “right to mobility”, it enhances the opportunities available to persons, and is an element of their freedom, essential tenet of development and sustainable development.

Some of the impacts of migration and remittances fit into this approach. The impact of migration on capacities is generally acknowledged, through education and health expenses which in general seem to be primarily boosted by the availability of remittances. Moreover migration, being an opportunity, can induce the acquisition of skills by would-be migrants. They will be likely to use them at home if at the end they do not migrate.

The overall contribution of migration to rural livelihoods could therefore be a positive effect of migration on social sustainability of some rural areas of Southern countries. However the decoupling of some of these livelihoods from agricultural income and agriculture in general can lead to minimize the focus on agriculture in poverty mitigation policies.

Moreover the regularity of remittances alleviate the vulnerability of households and increase their resilience to shocks generated in other areas (a price shock on an agricultural commodity, a climatic shock on agriculture, etc.). They give them the means to diversify their portfolio of activities at the local level.

III- 3 Migration and ecological sustainability

The relationship between migration and ecological sustainability can be two-fold:

- First environmental degradation can be a cause of out-migration in rural areas. Hence the rise of migration flows could be considered globally as an indicator of environmental degradation.

14 However the impact seems more obvious on deposits than on credit.

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- Second the impact of migration on activities performed in rural areas of origin can be a factor of environmental degradation.

On the first point, the idea that migration is linked to the environmental degradation in rural areas boils down to the idea that migration is primarily determined by push “factors”. This position is generally held by environmentalists, but as Massey and alii (2007) point out, most approaches of migration, either economic, sociological or anthropological, to-day stress the pull factors, namely the opportunities in the destination area or the institutional factors such as the existence of networks. The vision of migration as the exertion of capacity to mobility is at odds with the idea of migration as the mere consequence of environmental degradation. This relationship does not seem relevant for international migration as Massey and alii, 2007, have shown on the case of a rural Nepalese region. Gray (2009), drawing from data from Southern Ecuadorian Andes, shows that negative environmental conditions and landlessness do not systematically increase out-migration, particularly international migration. Likewise Tacoli (2009) underlines that international migration in Sahelian countries, affected by drought and desertification is more linked to economic opportunities at destination and the need of diversification of income than actual climate change. In some cases climatic crisis such as drought seems to reduce international migration, because it lowers capacity to migrate.

These elements however point at a difference in nature between long-distance and short-distance migration as the latter seems more linked to environmental degradation and low agricultural productivity (Gray, 2009). Long-distance and international migration would in this case be more coherent with a relative disconnection of rurality and agriculture. The relationship can even be inverted as the existence of a well-organised diaspora and the corresponding remittances can mitigate the out-migration stemming from natural disasters as Tacoli (2009) points out for South-East Asian Tsunami in Indonesia.

On the second point, migration can crowd out the other sources of household income and particularly subsistence agriculture, thus contributing for example to the demise of local crops and a consecutive loss of agricultural biodiversity. But, as we have seen, this is likely to occur when agriculture does not represent a valuable option for investment. Should this not be the case, remittances can contribute to agricultural investment as well as to other kind of investment. The main issue is therefore the identification of markets for agricultural products of this smallholder agriculture, which raise the issue of qualification of these products and maybe the existence of a residential market.

We cannot moreover exclude the possibility of migration actually alleviating the pressure on environmental resources : it's especially the case for insular economies with few agricultural possibilities (such as Cape Verde) and no other alternatives.

CONCLUSION

Raising the issue of the impact of migration on rural sustainability has an interesting side-effect: it leads to question the concept of rural sustainability which cannot be reduced to the sustainability of agricultural development. Rural sustainability refers to a set of activities located in rural areas, among them agriculture but also migration.

We would like to stress the following conclusions stemming from that starting point.

Rural sustainability is not only defined by the sustainable rural livelihoods of rural households. Rural sustainability is probably better defined as a resilient equilibrium between a set of activities at the meso-level in rural areas. From this point of view, mobility and

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migration, according to Tacoli (2009), not only increases resilience but enables individuals to accumulate assets. It is therefore an adaptation strategy to cope with risks and vulnerability and as such a factor of development sustainability, and this is true also, and maybe primarily, for rural areas of developing countries. In some of these areas, given the sustainable equilibrium between opportunities, migration can be a central element of sustainability.

Although international migration in rural areas can be considered as the extension of the classic rural-urban migration, it seems that, from the point of view of adaptation and sustainability; it has a different signification. The role of push factors in short-distance migration seems greater than in long-distance migration, thus emphasizing a lesser level of capacity and a greater level of vulnerability. On the contrary long-distance migration seems to stem from the perception of wider opportunities and for that reason more crucial for sustainability.

However the impact of migration on development, stemming whether from the role of migrant networks in the diffusion of information, knowledge or entrepreneurship or from the impact of remittances seems however to be highly dependant of opportunities in concerned areas. When they exist, migration can be a big boost to their realisation. When they do not exist the positive impact of migration will accrue to other areas. Moreover, the concentration of migration in specific rural areas means that, if migration is an element of sustainability of rural development, this would be accurate only for these specific areas, and would refer to a specific kind of "residential" development. In other words synergy between activities has to be contemplated non only at supply level but also at demand level: the question boils down to the possibility of a residential development for these areas, linked to migrants' remittances and skills, and to the definition of the role of agriculture in such a development scheme.

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